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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/413,348 10/06/99 FUKUTOMI

N Q56091

EXAMINER

QM02/0522

SUGHRUE MION ZINN MACPEAK & SEAS  
2100 PENNSYLVANIA AVENUE NW  
WASHINGTON DC 20037

KIM, C

ART UNIT

PAPER NUMBER

3752

DATE MAILED:

05/22/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/413,348

Applicant(s)

Fukutomi et al.

Examiner  
Christopher S. Kim

Group Art Unit  
3752



☒ Responsive to communication(s) filed on 27 Apr 2000

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 2-6 is/are pending in the application

Of the above, claim(s) 3-5 is/are withdrawn from consideration

☐ Claim(s) is/are allowed.

☒ Claim(s) 2 and 6 is/are rejected.

☐ Claim(s) is/are objected to.

☐ Claims are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on 6 Oct 1999 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been received.

☐ received in Application No. (Series Code/Serial Number)

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received:

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3 and 4

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 3752

## DETAILED ACTION

### *Election/Restriction*

1. Applicant's election of Species A, figure 1 in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 3-5 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.
3. Claim 6 will be considered as a generic claim.

### *Priority*

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

5. The drawings are objected to because the indicator for reference character "18" in figure 1 should point to the rubber ring. It appears that the indicator is pointing to the enlargement section or the sleeve. Correction is required.

Art Unit: 3752

6. Figures 7(a), 11, and 12(b) appear to show prior art and should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

*Specification*

7. The disclosure is objected to because of the following informalities:

on page 2, line 7-8, "However...t=t3." is not a complete sentence;

on page 3 line 1, "bound" should read --bounce--;

on page 3, lines 3 and 7, "24A" should read --23A--;

on pages 3-4 and 11-12, in the Summary of the Invention section and in the Description of the Preferred Embodiments, reference to specific claims is not proper since claims may change throughout the prosecution (claims have been changed by Paper No. 7);

on page 3, lines 14-19, "Accordingly...of an engine." is not a complete sentence;

on page 6, line 11, the usage of the term "energize" is not proper;

on page 7, lines 15-25, "Namely, when...needle valve 15 (see Fig. 12)." reads awkwardly;

on page 8, line 4, "not to project" is not understood by the examiner;

on page 10, line 8, "ignition" should read --injection--; and "bound" is used improperly throughout the specification.

These are just some examples of grammatical errors and applicant is required to correct all such errors.

Appropriate correction is required.

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***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cerny et al. in view of Beatty et al.

Cerny et al. disclose, in figure 2, an injector comprising: a solenoid 76; a valve 50; a sleeve 78 (referred to as a bobbin member); and a buffer zone 86'. Although Cerny et al. do not specifically indicate a buffer zone or the issue of needle bounce, they are inherent in the device. Beatty et al. disclose a seal 24; elastic member 130, 230, 135; and groove 125, 225. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have incorporated the elastic member (accumulator) of Beatty et al. to the pole piece 96 of Cerny et al. to reduce the pressure applied to the seal 100.

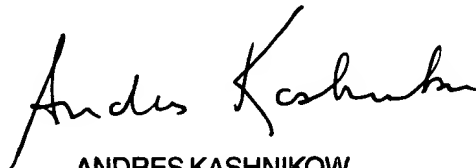
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday-Thursday from 6:30 a.m. to 5:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andres Kashnikow, can be reached on (703) 308-1137. The fax phone number for this Group is (703) 305-3588.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



ANDRES KASHNIKOW  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

5/17/00

CK

May 17, 2000